

Table 12. Usage of academic research instruments, by detailed type of instrument: 1993

[Percent of systems]

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Detailed type of instrument	Usage in 1993			
	Total	Research only	Predominately research	Predominately instruction
Total, all instruments	100%	64%	32%	4%
Computers and data handling instruments	100	48	46	6
Computers/components costing:				
\$1,000,000 and over	100	14	86	0
\$500,000 - \$999,999	100	62	38	0
\$50,000 - \$499,999	100	47	46	7
\$20,000 - \$49,999	100	49	45	6
Chromatographs and spectrometers	100	64	32	4
Chromatographs and elemental analyzers	100	68	29	3
Electron/auget/ion scattering	100	85	15	0
UV/visible/infrared spectrophotometer	100	70	25	5
NMR/EPR spectrometer	100	52	33	15
Xray diffraction systems	100	47	51	2
Other spectroscopy instruments	100	61	36	2
Microscopy instruments	100	54	43	3
Electron microscopes	100	28	66	6
Other microscopy instruments	100	66	32	2
Bioanalytical instruments	100	81	18	1
Cell sorters/counters, cytometers	100	76	18	6
Centrifuges and accessories	100	82	18	1
DNA/protein synthesizers/sequencers/ analyzers	100	72	26	1
Growth/environmental chambers	100	86	14	0
Scintillation/gamma radiation/counters/ detectors	100	83	16	1
Other instruments	100	67	27	6
Electronics instruments (cameras,etc)	100	64	30	6
Temperature/pressure control/ measurement instruments	100	65	28	7
Lasers and optical instruments	100	84	14	2
Robots, manufacturing machines	100	40	50	9
Telescopes/astronomical	100	34	53	13
Nuclear reactors/nuclear science instrument systems	100	65	35	0
Research vessels/planes/helicopters	100	41	36	23
Wind/wave/water/shock tunnels	S	S	S	0
Molecular/electron/ion beam systems	100	59	39	1
Major prototype systems	100	50	47	4
Other, not elsewhere classified	100	66	28	7

NOTES: Data in this table were not collected for supersystems, which are large, integrated instrumentation systems/facilities generally with an aggregate purchase price of \$1 million or more.

Because of rounding, percents may not add to 100.

KEY: S = fewer than 10 cases for analysis

SOURCE: National Science Foundation/SRS, Survey of Academic Research Instruments and Instrumentation Needs: 1993